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New Labour and Work-Time Regulation:

A Marxian Analysis of the UK Economy¹

Bruce Philp, Gary Slater and Daniel Wheatley

Abstract

This paper examines the impact of work-time regulation, introduced by the UK's New Labour governments (1997 to 2010). In doing so, we return to Marx's hypotheses regarding the length of the working day. These include the arguments that class conflict over the length of the working day is inherently distributional in a surplus-value sense and that workers often display a preference for reduced hours even with a proportionate reduction in pay. Our quantitative Marxist methodology provides a way of assessing the pattern of surplus-value before and during the period of office of the New Labour governments and the distributional effects of regulation. The impact of such regulations on workers' preferences are examined through an investigation of British Household Panel Survey data. Although many have been sceptical concerning the record of the last Labour governments, policies such as the Working Time Regulations (1998) and the Work-Life Balance Campaign (2000) are found to have been noteworthy innovations in the labour market. This is all the more important given recent moves by the successor government to weaken work-time regulation. Our results suggest the impact of these policy initiatives was broadly favourable, though the effect on men and women was different.

1. Introduction

The election of the New Labour government in 1997 marked an apparent change in approach to labour market and employee relations regulation in the UK. One of the clearest signals of this was the commitment of the new government to sign-up to the European Social Chapter, a move ferociously resisted and vetoed by the Conservative

administration during the negotiations leading up to the Maastricht Treaty of 1992. Expectations of the incoming Labour government were high, following eighteen years of Conservative rule characterised by incremental and continual steps to weaken trade unions and to deliver a flexible labour market. At one level, these expectations were met: employment legislation formed a central plank of the first New Labour government's legislative programme. Employment protection was extended in established areas, such as unfair dismissal legislation and discrimination. Employment legislation was also expanded in new areas which were often, but not exclusively, driven by developments at the European level. Key developments included: the National Minimum Wage (1998); the Working Time Regulations (1998); family leave policies; part-time and fixed-term worker regulations; and, a right to union recognition (see Department of Trade and Industry, 1998; Smith and Morton, 2006).

The National Minimum Wage (1998) and the Working Time Regulations (1998) stand-out as early, and apparently decisive, changes in approach. These changes were heralded by the Labour government as important new interventions which would improve the conditions of underpaid and overworked employees, whilst forcing employers to operate more efficiently. However, as discussed below, the extent to which these changes marked a decisive change or a missed opportunity is a moot point in the literature. What has become clear, though, is that the Conservative-Liberal Coalition government, elected in May 2010, is focused on weakening labour market regulation, arguing that it is detrimental to the flexibility of the UK labour market.

This paper focuses on the Working Time Regulations and the Work-Life Balance Campaign, together with their impact. The paper evaluates the effect of changing

work-time on the distribution of income in the UK economy, covering the period of, and immediately preceding, the election of the New Labour government. To assess this distributional issue our work returns to Marx's hypotheses regarding the length of the working day. Among other claims, Marx argued that: (i) class conflict over the length of the working day was inherently distributional (in a surplus-value sense); and, (ii) workers often exhibited a preference for reduced hours, even if this meant a proportionate reduction in the weekly wage (Marx 1976, pp.395-7; 1981, pp.391-2).

In this way, we are able to investigate the impact from regulation on capital and labour and better assess the real impact of these legislative changes (in a way which is analogous to Marx's examination of nineteenth century factory acts). Perhaps, too, this will allow us to understand better why business is seeking to reverse some of these legislative innovations. In Section 2 we discuss the background to the Working Time Regulations and the debate regarding their incorporation into UK law. Section 3 then turns to consider how the impact of regulations on the distribution of income might be assessed. To this end, it outlines a theoretical model of surplus-value, deriving estimates of surplus and necessary labour. In Section 4 we focus on the patterns of work-time and how they impact as an element in the distribution of income. We expand on this empirically by estimating the rate of surplus-value, exploring it in relation to a hypothetical (*ceteris paribus*) rate, driven by changes in working hours alone. In the penultimate section we examine preferences for hours using panel data derived from the British Household Panel Survey (BHPS). Marx suggested workers often preferred reduced hours rather than more pay, and this was a second hypothesis he had concerning the conflict over working hours. These same data are used to provide a more nuanced measure of surplus-value and variable

capital. In concluding, we highlight the importance of the framework proposed and approach adopted, evaluating government policies on these issues in this light.

2. The regulation of work-time in the UK

The Working Time Regulations (WTR) of 1998 (Working Time Regulations, SI 1998/1833), with subsequent amendments in 2002 and 2007, incorporated key aspects of the European Working Time Directive (EWTD) into UK law (Directive 93/104/EC). Their introduction marked a significant regulatory change in the UK labour market. Prior to this, working hours were subject to agreement through collective bargaining or, given the declining sphere of trade union influence, individual agreement. The EU Directive sought to protect against the possible negative effects which long working hours can have on the health of individuals (European Commission, 2005). Prior to this, limits on working time had been resisted by the Thatcher and Major Conservative administrations, committed as they were to flexible labour markets as a key plank in their pro-capitalist supply-side economic policies. Indeed, the Major government went so far as to challenge the legal basis for Working Time Directive as a health and safety measure at the European Court of Justice, since this meant that its passage was subject to majority voting rather than unanimity in the European Council (Gray, 1997). The main characteristics of the WTR (BERR 2008a) were: (i) a limit of 48 hours a week which the worker can be required to work, averaged over a 17 week period; (ii) a maximum average of 8 hours work in 24 for night workers; (iii) free health assessments for night workers; (iv) an entitlement to 11 hours rest each day; (v) an entitlement to a day off each week; (vi) an entitlement to an in-work rest break if the working day is longer than six hours;

(vii) an entitlement to four weeks of paid leave per year (*pro rata* for part-time employees); and, (viii) additional entitlements for adolescent workers (BERR, 2008a).

In support of this framework the 1997-2001 Labour government also launched the Work-Life Balance Campaign (WLBC), in March 2000. This followed-on from and extended an earlier linking of work-time regulation, family policy (including extensions to maternity and parental leave entitlements) and the National Childcare Strategy in the *Fairness at Work* white paper which set-out the recently-elected New Labour government's priorities for industrial relations and employment regulation (Department of Trade and Industry, 1998, chapter 5). The WLBC widened the focus of the white paper in seeking to encourage employers to provide a better fit between work and private life for *all* employees, regardless of their domestic responsibilities. Through the provision of advice, case-study research, partnerships with twenty-two leading employers and modest financial support to help employers access consultancy services to help develop new policies and practices, the campaign exhorted employers to introduce flexible working for their employees (Arrowsmith, 2001; see Shorthose 2004 for a critical analysis). Whilst much was made of the intrinsic benefits for employees, ministers also placed the benefits to business from adopting more flexible practices centre-stage as part of the government's strategy of raising workplace performance and productivity. For example, Education and Employment Secretary David Blunkett launched the campaign by stating 'we want more employers to develop working practices that will reward their business and their employees. Working together, we can fulfil our vision of enhancing our economic performance and at the same time improve the work-life balance for individuals. This is about imagination, not legislation', an emphasis echoed by Minister for Employment and

Equal Opportunities Margaret Hodge: ‘Government working together with employers for work-life balance will make a real difference; more flexible, competitive and profitable businesses - and a better quality of life for those who work in them’ (Department of Trade and Industry, 2000).

Despite the WLBC campaign’s voluntarist approach, the New Labour government did return to the legislative framework to support and promote work-life balance. Significant in this regard was the introduction of a statutory right from April 2003 - implemented by a series of Flexible Working Regulations - , for parents or guardians of children under six, or a disabled child under eighteen, to make a request for flexible working. From 2007, the right to request flexible working was widened to include those with caring responsibilities for an adult in the home.²

At one level these changes marked a significant and fundamental shift in labour market regulation. However, left-focussed economic research has been largely critical of many aspects of New Labour policy. In terms of the over-arching economic framework, Kitson and Wilkinson (2007) have argued that New Labour embraced the supply-side framework which had been a hallmark of Thatcherism, albeit it ‘with some nuances and shifts of emphasis’ (p.807). At a more microeconomic level Brown *et al.* (2007) have evaluated the evolving pattern of job quality following the shift in labour market and workplace policies. They find that the period 1998-2004 was characterised by some improvement in job quality. However, they conclude that it is unclear the extent to which this can be attributed to New Labour policies, rather than a favourable macroeconomic climate and rising employment rates. Indeed, they argue that one barrier which impeded improved job quality was the pro-business stance of New Labour’s employment policy.

Although the New Labour policy on work-time regulation may seem to have been a departure from the neo-liberalism of the Thatcher and Major governments, many commentators have been sceptical of this claim. Smith and Morton (2001, 2006) have consistently argued that New Labour continued the neoliberal approach of their Conservative predecessors. To be sure, a range of regulations of both domestic and European origin were implemented. But too often, they argue, this was done in a ‘minimalist manner’ (2001, p.122). Compounding this it is argued that scant knowledge of workers’ rights, coupled with weak sanctions to enforce the regulations, served to further undermine the effectiveness of these policies. It has been argued that UK work-time regulation is characterised by an absence of state intervention combined with uneven regulation across sectors (Fagan, 2003, p.11).

Indeed, there has been continued evidence of long hours among some employees in the UK. For example, Messenger (2011, p.302) reported ‘excessive hours’ (i.e. hours over 48 hours per week) among 17.7% of employees in the period 1995-2006. Meanwhile evidence reflecting on full-time workers in the UK, both in aggregate when compared to other EU nations (see Philp and Wheatley, 2013) and among specific groups of workers such as managers and professionals, (see Philp and Wheatley, 2011) is also indicative of continued long hours. The low coverage of collective bargaining agreements and the presence of long hours cultures in the UK act as significant drivers in the over-work of employees, reflected in a reported 6.1 hours gap between agreed and usual weekly hours (Fagan, 2003, p.11). Despite continuing evidence of long hours, the New Labour government resisted pressure to end the ability for UK workers to opt-out of working time limits. This followed from

the Directive's built-in 2003 opt-out facility review date. Following several Commission proposals, votes in the European Parliament and inconclusive discussions at the European Council, ultimately the opt-out review became linked with a proposed directive on temporary agency workers (see Keter, 2009). This led to a political agreement finally being reached at the June 2008 European Council, in which the UK allowed the agency directive to progress – not least in the light of pressure from its own backbenchers – in return for retention of the 48 hour limit opt-out in the UK, albeit with a new upper limit of 60 hours (see Hyman, 2008, p. 16). However, subsequent agreement could not be reached between the Council and the European Parliament and no further revisions to the directive have been made to date, with the opt-out remaining in place.. In other areas of employment regulation, the New Labour government avoided legal measures altogether, instead opting for 'soft regulation' in areas such as industrial relations, where a partnership approach was encouraged through exhortation and encouragement alone (Stuart *et al.* 2011). Against this background, it appears that successive Labour governments suffered from an uneasy tension between a continued preference for a supply-side approach to economic policy, and the need for labour market regulation to address the worst labour market abuses and the requirements of European Union directives.

With respect to the latter, Smith and Morton (2006, p.413) argue that the incorporation of the EWTD into UK law is the 'most vivid' example of the Labour governments' minimalist approach to transposing European law to the UK. Crucially, the EWTD's provision for individual employees to be permitted to opt-out of the maximum normal working week of 48 hours– included following demands from the then Conservative UK government (Geyer *et al.* 2005, p.126) – was fully utilised by

the incoming New Labour government. Although elected with a manifesto commitment to introduce work time regulations, in the course of transposing the directive into UK law as the Working Time Regulations ‘the Blair government fully exploited the derogations, exemptions and general flexibilities provided’ (ibid. p.136-7). As Barnard *et al.* (2003) note, the individual opt-out has been commonly used substantially weakening the legislation. This, of course, raises questions about the nature of choices individuals make and the circumstances in which they make them. In particular, workers may work beyond the WTR limit because of fear (for example about job security) or coercion in the workplace (for example from managers).

This pattern can be seen in the way other labour market regulations were structured. For example, the provisions of policies seeking to improve work-life balance seem to conflict with the avowed progressive intent. For example the Flexible Working Regulations, noted above, created the right for employees to *request* flexible working. However, employers were not bound by legislation to agree to the request. Rather, employers were permitted to refuse requests if they ‘consider’ that one or more grounds, as set-out in the legislation, apply to the request. These include the cost of accommodating the employee’s request, the difficulty of finding staff to cover the change in working time or the impact of the change on the quality and delivery of the service, none of which are simple criteria to assess in objective terms.. In this context these developments made no real challenge to employer power, or allowed for state coercion if employers reject such requests on the basis of their own narrow interests, which may be trivial (for a discussion of such issues in the context of the work-time preferences of managers and professionals see Wheatley et al 2011).

Thus it appears that, upon inspection, the shift heralded by the raft of legislation and regulations introduced by the New Labour governments was not as radical a departure as it may have first appeared. That said, it remains to be established what the actual effect was, even if the reality of protection fell short of the expectations of some commentators and academics. It is certainly the case that these changes would not have been introduced by a Conservative government. Indeed, the Conservative-Liberal Coalition entered office promising to review the Labour legacy, the Coalition Agreement stating '[w]e will examine the balance of the EU's existing competences and will, in particular, work to limit the application of the Working Time Directive in the United Kingdom' (HM Government, 2010). In particular, the Coalition has restated its commitment to retaining the individual opt-out from work-time rules (so important in weakening the regulations) and to reversing changes imposed following legal challenges (in particular relating to the work-time of those on-call) (BIS, 2011). So, from a left-perspective the regulations have always been flawed and insufficient to protect workers, while from the political right clearly the implication is that the regulations are an unnecessary burden on business.

This, in some sense, becomes an empirical question: what was the impact of work-time regulation under New Labour, in terms of distribution and the well-being of workers, in the private sector? In the next section we shall consider the issue of distribution, connecting the conflict to Marx's theory of surplus-value, located within a new interpretation conceptual framework. In the subsequent section we shall then empirically estimate the rate of surplus-value before examining how it was affected by changes in the length of the working day. This approach is analogous to Marx's

treatment of absolute surplus-value and his investigation of conflict over the length of the working day in Chapter 10 of the first volume of *Capital*.

3. Surplus-Value and the Length of the Working Day

Radical economists have been interested in the determinants and dynamics of work-time since the nineteenth century. In the first volume of *Capital*, published in 1867, Marx paid attention to the class-based theory of work-time determination (the production of absolute surplus-value), investigating it using empirical evidence and evaluating it in its (factory act) policy context (Marx 1976, pp.340-416). Moreover, he elaborated on this analysis by considering workers' preferences for hours in relation to wages (Marx 1976, pp.395-7; 1981, pp.391-2). In combining these two elements of Marx's analysis we intend to offer an insight into New Labour's policy on work-time.

In the early stages of Britain's industrial revolution capitalists imposed longer-and-longer working days on an unwilling labour force, culminating in regulation against this in the form of various factory acts passed from 1802 to 1850. And, partly as a result of this, emphasis shifted from extensive to intensive labour extraction — i.e. from absolute to relative surplus-value production — in the second half of the nineteenth century (Marx, 1976, Hobsbawm, 1968). Of interest to us in this paper is whether New Labour work-time policy has had any impact on the hours people work and, relatedly, their satisfaction with hours.

The Marxian notion of surplus-value is central to the analysis of capitalism, and the “new interpretation” (Duménil, 1980; Foley 1982; for an exposition of these approaches see also Mohun, 1994, 2004) is an approach which maintains the macroeconomic equivalence of labour-time and money value added. In this setting the rate of surplus-value is defined in terms of the distribution of net output. In this

section we shall outline the basics of this theoretical approach before discussing the productive-unproductive labour distinction in relation to surplus-value.

In order to effect the translation between the sum of values and the sum of prices the new interpretation uses a particular coefficient — the value of money (λ_m) — to render clear their interconnection. Surplus-value is the equivalent of profit, interest and rent, and variable capital comprises the wages paid to workers by capitalists. The value of labour power (VLP) is the money wage rate (w) multiplied by the value of money (i.e. $VLP = w\lambda_m$). This can be thought of as the cost of satisfying socially determined human needs at a particular point in time which must be satisfied for workers to provide their capacity to work.

In the empirical analysis, to be outlined below, we will assume that the unit of time which dominates production, is the average working week. That is, surplus and necessary labour, for an average capitalist subsector worker, reflect a distribution of hours (between capital and productive labour) for a representative week, over a year.

In aggregate, the rate of surplus-value (s') is the ratio of aggregate surplus-value (S) to aggregate variable capital (V). Wage rates, recall, are connected to the VLP via the value of money. The complement to variable capital as a share of net output is defined as surplus-value. In terms of the value of labour power the ratio of aggregate surplus-value (given by $S = L(1 - VLP)$), to aggregate variable capital (represented by $V = L \cdot VLP$), gives us an alternative formula for the rate of surplus-value (where L is the total number of hours worked in the economy).

Mohun (1994) demonstrates that the rate of surplus-value, under new interpretation assumptions, will also equal the ratio of aggregate profit (Π) to aggregate wages (W), derived from multiplying physical outputs by prices. In our case aggregate wages will be equal to the hourly wage rate (scalar w), multiplied by the direct labour input per unit of output per week (row vector l) and the output level per week (column vector x). The row vector of prices (p) multiplied by the column vector of net outputs (y) gives aggregate net output, and if we deduct aggregate wages from this we derive aggregate profits. Thus, the following holds:

$$s' = \frac{S}{V} = \frac{L(1 - VLP)}{L.VLP} = \frac{py - wlx}{wlx} = \frac{\Pi}{W} \quad (1)$$

We thus define the rate of surplus-value, and establish the equivalence of this and the ratio of aggregate profits and aggregate wages, thereby providing a practical way to estimate the surplus-value rate using national income data. This is because, in this framework: ‘Net output ... is divisible into aggregate wages and aggregate profits; net output as an aggregate of labour-times is divisible into aggregate necessary labour and aggregate surplus labour, and as a money-value sum into aggregate variable capital and aggregate surplus-value’ (Mohun, 1994, p.403) Therefore, in principle, the expression Π/W gives us an operational way to calculate the surplus-value rate using national income data.

One complicating factor concerns the productive-unproductive labour distinction. This distinction is applied by many Marxian economists (Moseley, 1985; Foley, 1986; Shaikh and Tonak, 1994), whilst others have questioned the use of these Marxian categories (Duménil and Lévy, 2011; Laibman, 1992). Advocates of the distinction have argued that the vast majority of government employees, plus many groups of

private sector workers (those in managerial roles, finance and advertising for example), are unproductive. Such workers do not create surplus-value and hence they are paid out of revenue (which is a transfer from surplus-value). This has implications for the empirical estimation of the surplus-value rate.

In order to examine changes in the rate of surplus-value consequent upon a change in the length of the average working week we will focus on an average worker (thus our analysis remains at the aggregate level). In the first case (where we treat all private sector workers as productive) we will consider the distributive effects emanating from the change in the average working hours of those in private sector employment. New Labour brought in various measures intended to give workers more control over the hours they worked, and we will ascertain the distributive effects of these within a surplus-value framework. Thereafter we will consider how distribution is affected by changes in working hours if we only consider “productive labour” (to be defined below) as value creating. In particular we will consider how changes in the average hours worked by productive private sector workers (employees and the self-employed) change the surplus-value rate, examining this in an absolute surplus-value production framework. In both cases data will be derived from income-based national income data (the “Blue Book”) which will be supplemented by variables constructed using the full panel of the British Household Panel Survey (BHPS). By combining the latter with the former we are able to better replicate Marxian categories.

4. Two Empirical Approaches to Surplus-Value

There have been a number of attempts to empirically investigate trends in the rate of surplus-value (e.g. Weisskopf, 1979; Moseley, 1988; Gouverneur, 1982, 1990; Shaikh

and Tonak 1994). Our approach is distinct because of: (i) the time-frame being investigated; (ii) the data being used; (iii) the comparison being made under different assumptions about the productive-unproductive labour distinction.

Foley's (1986) seminal work on the new interpretation examines value flows in the US economy, and we will use this to organise our analysis. Foley estimates the aggregate of new value created, explicitly excluding the wages of government workers from aggregate value (p.123, lines 5-6).⁴ In order to replicate this in our analysis we estimate the wages of public sector workers, using the full panel of the BHPS to estimate the wage share of public sector workers in each sample period (1992-2009). This then allows us to deduct public sector wages from aggregate compensation, leaving us with private sector wages. In the next subsection we will develop this within a framework which treats all private sector labour as productive. Thereafter we construct an empirical model adhering to the productive-unproductive labour distinction, in keeping with Foley (1986, pp.122-123).

4.1 Surplus-value assuming all private sector labour is productive

In order to examine the effect of changes in working hours on the rate of surplus-value we will take a base year of 1992 and define surplus-value as the sum of the gross operating surpluses of financial, public limited and private limited companies in the UK economy (Office for National Statistics ID numbers NQNV+NRJT+NRJK in Table 1). In addition we include a portion of mixed income proxying profits in the mixed income category (a spreadsheet of the steps undertaken in the following analysis is available from the authors on request). The latter is undertaken to ensure

that all of the main income-based GDP categories are incorporated into our model. GDP (when measured by category of income) is equal to gross operating surplus plus gross mixed income plus compensation of employees. Mixed income is defined as: ‘The balancing item on the generation of income account for unincorporated businesses owned by households. The owner or members of the same household often provide unpaid labour inputs to the business. The surplus is therefore a mixture of remuneration for such labour and return to the owner as entrepreneur’ (Office for National Statistics, 2013). For completeness, we undertake a procedure to apportion mixed income between capital and labour, though the relatively small size of the mixed income category in GDP data implies there will be little substantive effect of doing this.⁵ We treat all mixed income as private sector employment and estimate the number of self-employed workers (as a proportion of total private sector employment) using the distribution in the BHPS sample each year as a proxy. We calculate the average weekly wage for private sector employees and use this, multiplied by the number of self-employed workers, to estimate the aggregate wage component of mixed income. We then subtract this from aggregate mixed income to derive the aggregate profit component of mixed income.

The rate of surplus-value is then defined (in aggregate) as the ratio of corporate profits plus the profit component of self-employed income, divided by the aggregate wage component of mixed income plus private sector (employee) wages. In order to calculate the latter we use the wage data in the BHPS to estimate the private sector employee wage share, and multiply this by aggregate compensation of employees (ONS code HAEA) taken from the Blue Book. The trajectory in the rate of surplus value (s') is depicted in Figure 1, and in Figure 2 we outline the percentage point

change in the surplus-value rate in each given year. Of particular note in these figures are the rises in the surplus-value rate in the early part of the 1990s, and the falls in the rate which began in 1996, becoming particularly pronounced in the period which coincided with the first term New Labour government, 1997-2001.

INSERT FIGURE 1 HERE

INSERT FIGURE 2 HERE

In order to provide insight into the effect of changes in working hours on the rate of surplus-value we will use our aggregate profit (Π) and aggregate private sector wages (W) data (each of which includes their respective share of mixed income), allocating the average working day week for those in private sector employment between surplus and necessary labour in proportion to these income streams. Defined thus, aggregate profits and private sector wages are given as follows:

$$\Pi = py - wlx \quad (2)$$

$$W = wlx \quad (3)$$

Where \dot{h} is the number of hours worked per private sector employee (which is a weighted average of the hours worked by employees and those worked by the self-employed), necessary labour (\dot{n}) for a private sector worker is defined thus:

$$\dot{n} \stackrel{\text{def}}{=} \frac{W\dot{h}}{\Pi + W} \quad (4)$$

And, the level of surplus labour for an average worker is given by:

$$\dot{n}' \stackrel{\text{def}}{=} \frac{\Pi\dot{h}}{\Pi + W} \quad (5)$$

On the basis of these definitions, and using a method inspired by Gouverneur (1990), it is possible to use \dot{n} from a base year and look at the effect of a change in the

average working day in subsequent years, isolating this from other drivers of surplus-value production (for example, relative surplus-value production and changes in the real wage). That is, to isolate absolute surplus-value emanating from changes in working hours, we will hold \dot{n} constant and calculate the rate of surplus-value using the actual working day less \dot{n} in the base year, deriving an inferred level of \dot{n}' as a residual. Note, this is an average inferred from aggregate data, thereby not diminishing the macroeconomic nature of the new interpretation framework.

This paper aims to explore the impact of changes in average working hours in terms of Marx's theory of surplus-value, hence we will do so using a *ceteris paribus* approach which takes necessary labour as constant (at 1992 levels). This allows us to explore what the rate of surplus-value would be for a given level of necessary labour, isolating changes in the rate as a consequence of changes in work-time alone. Thus, we derive an alternative rate of surplus-value (s^*), which maps changes in the rate of surplus-value as they would be driven by changes in working hours alone. This series is represented by the dashed line in Figure 1.

Comparison of s' and s^* provide an interesting illustration of the impact of falling hours on distribution. In 1998 s^* peaks at 42.33%, before it begins to fall reaching 33.44% in 2008. Although there is some rise in the subsequent year it would seem there were marked gains for workers if we examine the effect of changes in work-time alone. This can be contrasted with the period of Conservative government predating the period of our investigation, where lengthening hours were a hallmark of the Thatcherite governments.

4.2 Surplus-Value Incorporating a Productive-Unproductive Labour Distinction

Having outlined one conceptualisation of surplus-value, we will now consider a second approach which replicates that of Foley (1986, pp.122-123). This approach differs in that it is only the wages and labour time of productive workers which are considered part of variable capital (the numerator of the rate of surplus-value) and the wages of unproductive workers (employees and self-employed) are reallocated to the numerator (since they are paid out of revenue, i.e. surplus-value). The method is otherwise identical to that outlined in subsection 4.1.

Precisely defining productive and unproductive labour is replete with difficulty, and space prohibits us from discussing this at length here (interested readers are directed to Shaikh and Tonak 1994 for an extensive investigation, and to Laibman 1992 for a critique of such approaches). Workers are categorised in the BHPS according to the Standard Occupational Classification (SOC) and we use this to classify productive and unproductive work in Table 1. Broadly, activities which produce surplus-value are deemed productive (e.g. machine operatives in manufacturing) whereas work which realises, but does not produce surplus-value, is deemed unproductive (e.g. finance and advertising). Difficulties in precisely separating productive and unproductive work include the inseparability of organisational and supervisory roles in management (Duménil and Lévy, 2011).

INSERT TABLE 1 HERE

In calculating the surplus-value rate in this case we define surplus-value as comprising corporate profits, the wages of unproductive private sector workers, and mixed income, less the aggregate wage component of productive self-employment.

Aggregate variable capital is equal to the wages of productive employees plus the aggregate wage component of productive self-employment. The trajectory of this rate (s') is outlined in Figure 3, as is the hypothetical rate (s^*) driven by changes in the working hours of productive workers alone.

INSERT FIGURE 3 HERE

It is clear that in employing the productive-unproductive labour distinction, the rate of surplus-value is higher. In criticising approaches which regard all private sector labour as productive Foley argues 'this way of looking at things gravely underestimates both the productivity reached by the capitalist system and the surplus value it can achieve' (1986, p.124). Thus, the rate of surplus-value in our second approach fluctuates between 130.35 and 178.34%: figures that are far higher than in the case above. Were we to include the wages of public sector workers in the numerator of the surplus-value rate this figure would be even higher.

In terms of our hypothetical rate driven by changes in working hours (of productive workers) alone, the rate begins to fall from 1998, slowly at first, and then gaining momentum in the later years of the New Labour government. Thus, by 2009 the hypothetical rate (driven by changes in working hours alone) stands at 105.09% whereas the actual rate is 164.87%.

In summary, it is clear from comparison of s' and s^* (in both models) that most of the fluctuations in the actual surplus-value rate are a consequence of factors other than changes in the length of the working day (e.g. relative surplus-value production and changes in the real wage). However, insofar as there is a secular trend it is apparent that s^* had generally risen in the latter years of the Conservative government, and

that changes in working hours in the periods of New Labour government generated a period of falling working hours with an associated effect on the rate of surplus-value. Whatever the disappointment associated with the scope of New Labour's labour market reforms, such patterns are significant, especially when set against the threat to work-time regulation posed by the present administration.

It is therefore apparent that falling working hours were a significant feature of the New Labour governments. However, what is not clear is whether policy changes increased the satisfaction of workers vis-à-vis work-time.

5. Preferences for Reduced Hours: Private Sector Employees

In the Marxian analysis of working hours it is important to recognise that there are distributional effects stemming from changes in the average length of the working day. Furthermore, issues related to workers' preferences for hours are important. Dissatisfaction with hours is one facet of the alienation felt by workers under conditions of capitalist production. One feature of mainstream analyses is that there is a strong presumption that observed outcomes (working hours) accord with utility maximising behaviour, subject to constraints. In this context the hours individuals work then reflect these preferences, and we would expect broad satisfaction with hours worked once budget constraints are incorporated. Empirical evidence shows that this presumption is seriously flawed (e.g. Wheatley *et al.* 2011).²

One of the features of various UK Government surveys is that they explicitly ask workers if they are satisfied with the hours they work, and of more significance they

ask workers if they would wish to work shorter hours, even if it means a commensurate reduction in pay. In the previous section we considered the impact of work-time regulation on the distribution of income, in terms of a Marxian surplus-value rate. We demonstrated that there were falls in surplus-value emanating from changes in work-time alone (s^*), and this coincided especially with the transition from Conservative to New Labour governments.

One important related issue is whether the period associated with transition to New Labour heralded an improvement in people's satisfaction with hours (i.e. did this diminish alienation within the labour process?). In order to investigate this we will use panel data extracted from the British Household Panel Survey from 1993-2009 (note that 1992 is not included in the analysis as a series of variables were not collected in this initial year of the BHPS). Analysis comprises separate multinomial logit regression models for men and women, as it has been shown that there continues to be significant gender differences with respect to work-time (and preferences). On aggregate, men continue to work lengthier hours than women, with this being particularly pronounced in the UK (see Bielinski *et al.* 2002; Fagan, 2003, p.32). This may, in part, be a result of men feeling financial compunction (in some cases linked to low pay in their sector of employment). Meanwhile, women continue to be burdened with the majority of household responsibilities including the provision of childcare, driving greater incidence of flexible and reduced hours work and preferences for shorter work-time (McDowell *et al.* 2005; Fagan, 2003, p.41). Multinomial logit regression is suitable due to the categorical nature of the dependent variable which measures respondents preferences regarding their hours of work, where 'carry on working the same number of hours' = 0, 'work more hours than you do now' = 1, and

‘work shorter hours than you do now’ = 2. This dependent variable reflects answers to the following question in the BHPS: ‘Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to work fewer hours than you do now?’ The models consider preferences regarding working hours, as the analysis presented seeks to understand, using macroeconomic independent variables and a range of control variables, the effects of New Labour employment policies on the alignment between workers’ preferences and outcomes. Preference for shorter working hours is therefore used as a proxy for dissatisfaction with work-time.

The dependent variable is regressed against macroeconomic characteristics, measuring the effects of the unemployment rate, *Working Time Regulations*, *Work-Life Balance Campaign* and the presence of a Labour government. Aspects of time-use are included as control variables as work-time and the household division of labour (reflected in hours of housework and care) have been found in previous research to have statistically significant impacts on preferences for shorter hours (see Philp and Wheatley, 2011; MacDonald et al, 2005). Research within both mainstream and heterodox economics has identified a range of individual and household determinants of satisfaction levels, which are thus incorporated into the analysis as control variables, including age (Blanchflower and Oswald, 2004), education (Dolan et al, 2008), income (Easterlin, 2001; Clark et al, 2008), occupation (Wheatley et al, 2011), and the presence of dependent children (Garcia et al, 2007; Fagan, 2003, p.41). The results of our panel data analyses are reported in Table 2. The output includes marginal effects at mean (MEM) which allows interpretation of the magnitude of the impact of variations in the control variables on the likelihood to report preferences for reductions in hours.

INSERT TABLE 1 HERE

The results suggest, in terms of individual variables, that age is positively related to preferences for reduced hours among private sector employees, i.e. the older you are the more likely you are to desire reduced hours with a commensurate reduction in pay, although the coefficient on the quadratic term suggests this is only the case up to a certain age after which preferences for shorter hours begin to decrease once more. The same pattern is present among those reporting preferences for more hours, although the size of the effect is smaller. A second factor is the length of workers' commutes: the longer the commute the greater the likelihood of a preference for reduced hours (the same relationship is not present among those who desire more hours). Care givers are also more likely to state a desire for reduced hours, particularly amongst female employees. As we might expect hours worked are positively related to the preference for reduced hours among men and women evidencing the negative effects of lengthy work-time. Meanwhile, the opposite is found among those stating preferences for more hours reflecting the underemployment present among some workers. Annual income, too, exhibits a positive coefficient among those who desire shorter hours and a negative coefficient among those desiring more hours. This indicates that those on low pay are less willing to accept reduced hours, and we suspect this is because of the impact on tight household incomes for those in such circumstances. Concerning children, there is a difference between the regression results for men and women. Men with children are *less* likely to desire a reduction in hours than men without children, whereas consistent with other research (e.g. Fagan, 2003, p.40-1), women are *more*

likely to express a desire for reductions in hours when children are present. If we accept this correlation it is perhaps indicative of the fact that childcare responsibilities tend to fall disproportionately on women, resulting in them working a “double shift” of paid work and child care, while men’s desire for fewer hours diminishes as they are subject to feelings of financial compunction.

With respect to education, there seems to be no correlation between educational attainment and preferences for reduced hours, except for women with intermediate-level ‘A’ level and GCSE qualifications who exhibit a significantly greater preference for reduced hours with less pay relative to those without qualifications. Those with ‘A’ level qualifications also, interestingly, report a lesser desire for more hours than those with no qualifications. This may reflect preferable working conditions (with respect to hours) among more qualified workers. Turning to differences by occupation group, the desire for reduced hours is particularly pronounced among managers, professionals, and associate professional and technical occupations of both sexes in comparison to those in elementary occupations, likely reflecting the impact of extensive hours worked in some of these occupations. Differences also emerge in administrative, sales and customer service and machine operative roles, although the size of the effects and level of statistical significance are less consistent among these occupation groups.

Of particular interest in our study are the macroeconomic variables. As we might expect the annual national unemployment rate is negatively correlated with the preference for reduced hours among both men and women: workers tend to be less dissatisfied with their working hours when there is a larger “reserve army” of the

unemployed. Of special relevance for the present study is the coefficient associated with the dummy variable pertaining to the introduction of the Working Time Regulations (1998). We find that that it is significant (at the 5% level) for men, with a negative coefficient. In other words, preferences for reduced hours seem to have fallen since the introduction of legislation giving workers the right to various breaks and to refuse long hours by the New Labour government. Overall, the regulations have facilitated a greater alignment between male workers' preferences and outcomes by giving workers greater control over the excesses associated with particularly long hours. By contrast, for women, this policy initiative was not significant, reflecting a lower incidence of long-hours working (see Mutari and Figart, 2000, p.244). Instead, Table 2 indicates that the WLBC impacted more on women's preferences for reduced hours, with a significant (at the 1% level) fall in the desire for shorter hours with less pay following the introduction of this policy initiative. This suggests that flexibility was the key dimension for women workers, rather than absolute hours.

Finally, a dummy was introduced for the period associated with the New Labour government. For both men and women there was a negative coefficient indicating preferences for reduced hours with less pay was lower under New Labour. However, this was not significant at the 10% level for men whereas for women it was significant at the 5% level. This, again, suggests that other aspects of Labour policy impacted on women's satisfaction with hours (e.g. family tax credits). In addition, it is worth noting that the presence of the New Labour Government is also associated with an increase in the preferences for more hours among women, perhaps indicative of the effects of employment and welfare policies which encouraged employment among mothers (McDowell et al, 2005, 446).

The results of this analysis lend further weight to the suggestion that New Labour policy on work-time had a significant effect on workers, both in terms of its *ceteris paribus* impact on distribution (measured by the rate of surplus-value), and because of its impact on satisfaction with hours. After a period of Conservative administration, which had been hostile to any intervention in the labour market, the first term New Labour government introduced policies which improved the conditions of workers in this regard. This result is clear in the data: workers were happier, in this regard, when these policy initiatives were introduced. For women, this had a significant effect on their satisfaction with hours when they were able to work more flexibly (as a consequence of the WLBC). For men, who tend to work in more traditional formats, it was the WTR that impacted their satisfaction favourably.

6. Summary and Conclusion

Marx's analysis of conflict over the length of the working day has been generally relegated to a secondary concern behind issues such as the transformation problem and the falling rate of profits hypothesis. It is our view that Marx's analysis of 'The Working Day', in the first volume of *Capital*, provides a valuable insight into distribution, legislation and alienation. While it may be necessary to re-situate Marx's analysis in a more modern conceptual and empirical approach, the influence of Marx in our analysis of the effect of New Labour work-time policies in the period 1997-2010 is clear. We also contend that the results we have obtained are significant, and are an important caveat when assessing the performance of the governments. Our results suggest that, while the outcome was less desirable than might have been hoped

for, there were nevertheless positive effects, in terms of distribution and satisfaction with work-time, emanating from these initiatives.

This paper has used publically-available data to examine the rate of surplus-value and assess the impact of changing working hours on it in the period 1992-2009. The results are clear and interesting:

1. The initial years associated with New Labour coincided with a period when there were profound gains for workers in the form of diminished surplus-value rates (see Figure 1), calculated on the basis of gross incomes.
2. From 1996-1999 there were modest falls in the average duration of work-time for UK workers. *Ceteris paribus* this had a negative effect on the rate of surplus-value demonstrated by the fall in s^* over this period.
3. Individual characteristics — e.g. age, commuting times, hours worked, children — have a significant effect on preferences for reduced hours (with commensurate reductions in pay). The size of the “reserve army of the unemployed” also impacts on preferences for reduced hours, with the degree of dissatisfaction diminishing when unemployment is high.
4. Policy initiatives associated with New Labour were also correlated with workers’ preferences for reduced hours with less pay, indicating greater satisfaction. The WTR diminished preferences for reduced hours among men, indicating a better alignment between hours and preferences. The WLBC also had an equivalent effect upon women.

Progressive economists have many reasons to be disappointed with the performance of the three New Labour governments in the period 1997-2010. However, our results

suggest New Labour work-time policies, *ceteris paribus*, had a negative effect on the rate of surplus-value, suggesting the exploitation of labour over this period diminished. At the same time pro-worker work-time regulation and policy initiatives contributed to a greater alignment of hours worked, with preferred hours. Under the subsequent Coalition government there is likely to be a return by employers to greater reliance on absolute surplus value production through weakening of work-time regulation. Whatever the failings of other aspects of New Labour policy, these initiatives should be welcomed by those with a commitment to workers' well-being, especially when set against government policy in the period before and after.

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Appendix 1: ONS Statistical Sources

Definition	ONS Code	Source
Gross operating surplus: financial corporations (NSA)	NQNV	ONS Website http://www.statistics.gov.uk/default.asp Accessed 24 th October, 2013
Gross operating surplus: NFCos: private (NSA).	NRJK	
Gross operating surplus: NFCos: public: (NSA).	NRJT	
Total compensation of employees (NSA).	HAEA	
Mixed income, gross (NSA).	QWLT	
Private Sector Employment (NSA): Headcount: Thousands	CDID	

Figure 1: Surplus Value Rates (%) with all Private Sector Labour Productive

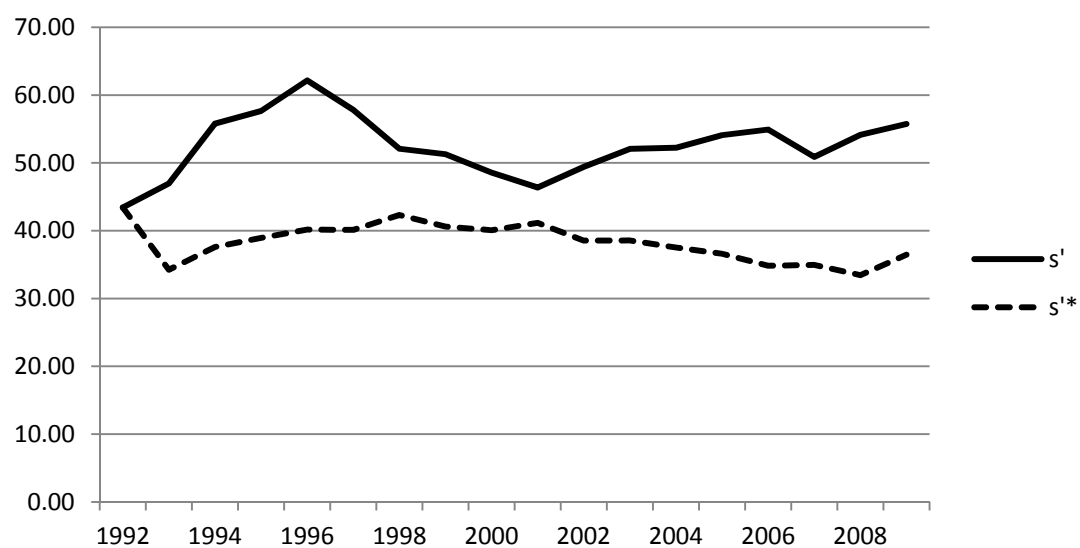


Figure 2: Changes in the UK Surplus-Value Rate, 1992-2009

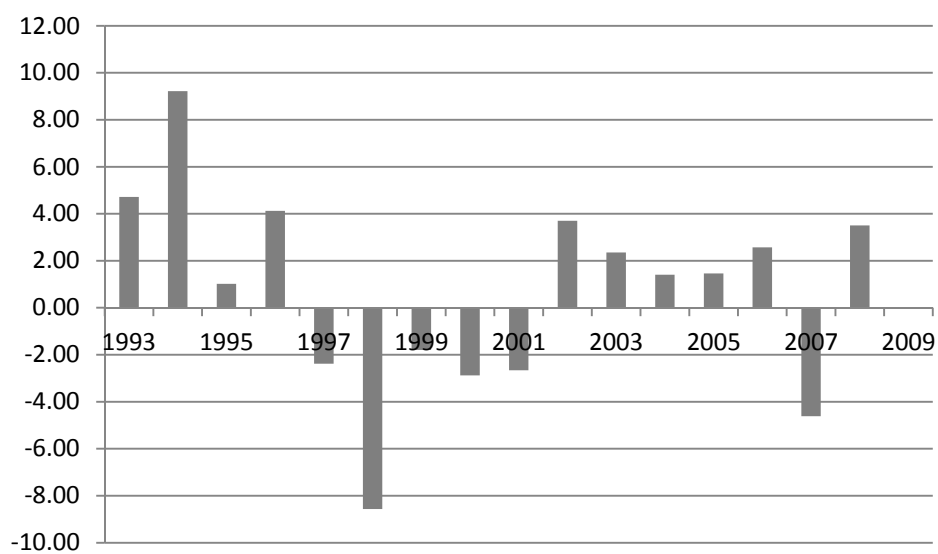


Figure 3: Surplus Value Rates (%) with Productive-Unproductive Labour

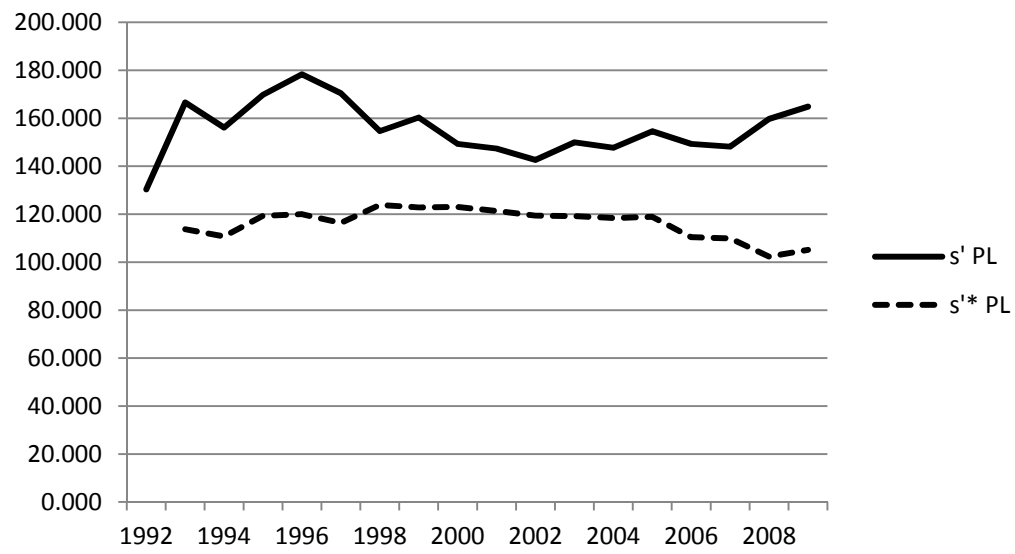


Table 1: SOC Categories of Productive and Unproductive Labour

Productive Labour	SOC	Unproductive Labour	SOC
		Managers and Senior Officials	1
Professional Occupations	2	<i>Exceptions</i> Legal Professionals Business and Statistical Professionals	241 242
Associate Professional and Technical Occupations	3	<i>Exceptions</i> Protective Service Occupations Legal Associate Professionals Business and Finance Associate Professionals Sales and Related Associate Professionals	331 352 353 354
Administrative and Secretarial Occupations	4	<i>Exception</i> Administrative Occupations: Finance	412
Skilled Trades Occupations	5		
Personal Service Occupations	6		
		Sales and Customer Service Occupations	7
Process, Plant and Machine Operatives	8		
Elementary Occupations	9		

Table 2: Preferences regarding working hours (private sector)

	Men			Women		
	Coefficient	S.E.	Marginal Effects	Coefficient	S.E.	Marginal Effects
0 <i>(Base outcome = prefer same hours)</i>						
1 <i>Prefer more hours</i>						
Constant	-0.915**	0.364	—	-1.867***	0.373	—
<i>Microeconomic Variables</i>						
Age	0.039***	0.013	0.000	0.095***	0.014	0.004***
Age ² /100	-0.084***	0.017	-0.002***	-0.152***	0.018	-0.007***
Working hours	-0.030***	0.002	-0.002***	-0.042***	0.003	-0.003***
Overtime	-0.009**	0.004	-0.001***	0.011**	0.006	0.000
Commute	0.006	0.007	0.000	0.019**	0.009	0.001
Care	-0.008	0.005	-0.0004*	-0.005*	0.003	-0.0003**
Housework	0.006	0.005	0.0004*	0.007***	0.003	0.0004***
Annual Income (£,000s)	-0.031***	0.003	-0.002***	-0.061***	0.007	-0.003***
Married	-0.217***	0.064	-0.013***	-0.699***	0.061	-0.042***
No. Children	0.113***	0.029	0.006***	-0.244***	0.035	-0.013***
<i>Qualifications: References is No Qualifications</i>						
Degree	-0.054	0.101	-0.002	-0.191	0.125	-0.008
‘A’ Levels	-0.161*	0.073	-0.008**	-0.292***	0.080	-0.018***
GCSE	-0.089	0.069	-0.003	-0.046	0.069	-0.004
<i>Major Occupation Group (SOC): Reference is elementary occupations</i>						
Managers	-0.643***	0.116	-0.033***	-0.407***	0.137	-0.022***
Professionals	0.019	0.129	-0.005	-0.073	0.206	-0.008
Associate prof. and technical	-0.066	0.108	-0.009*	-0.144	0.133	-0.011*
Administrative	-0.059	0.094	-0.005	-0.151*	0.086	-0.011**
Skilled trades	-0.027	0.086	-0.005	-0.548***	0.204	-0.024***
Personal service	0.254**	0.100	0.012*	0.029	0.083	-0.000
Sales and customer service	-0.148	0.098	-0.013***	-0.050	0.078	-0.005
Plant, process, machine ops.	-0.005	0.090	-0.003	-0.215	0.138	-0.013**
<i>Macroeconomic Variables</i>						
Unemployment rate	0.040	0.032	0.003**	0.075**	0.032	0.005***
Working Time Regulations	0.135	0.124	0.009	-0.106	0.121	-0.006
Work Life Balance Campaign	-0.059	0.074	-0.003	0.057	0.078	0.005
Labour Government	-0.072	0.132	-0.002	0.151	0.127	0.010*
2 <i>Prefer fewer hours</i>						
Constant	-4.712***	0.229	—	-4.51***	0.264	—
<i>Microeconomic Variables</i>						
Age	0.111***	0.008	0.024***	0.072***	0.009	0.012***
Age ² /100	-0.111***	0.009	-0.023***	-0.070***	0.011	-0.011***
Working hours	0.045***	0.002	0.010***	0.066***	0.002	0.013***
Overtime	0.040***	0.002	0.009***	0.035***	0.003	0.007***
Commute	0.013***	0.003	0.003***	0.025***	0.005	0.005***
Care	0.002	0.002	-0.002*	0.004**	0.002	-0.001***
Housework	-0.007**	0.003	0.001**	-0.002	0.002	0.001
Annual Income (£,000s)	0.004***	0.001	0.001***	0.013***	0.002	0.003***
Married	0.100***	0.032	0.026***	0.313***	0.035	0.070***
No. Children	-0.038**	0.015	-0.010***	0.039*	0.021	0.011***
<i>Qualifications: References is No Qualifications</i>						
Degree	-0.055	0.052	-0.011	-0.093	0.068	-0.015
‘A’ Levels	0.013	0.040	0.006	0.114**	0.050	0.026***
GCSE	-0.066*	0.038	-0.013	0.117***	0.044	0.023***
<i>Major Occupation Group (SOC): Reference is elementary occupations</i>						
Managers	0.489***	0.061	0.122***	0.314***	0.078	0.069***
Professionals	0.317***	0.073	0.072***	0.271**	0.105	0.056**
Associate prof. and technical	0.319***	0.068	0.074***	0.295***	0.084	0.062***
Administrative	0.125*	0.068	0.029*	0.224***	0.070	0.046***

Skilled trades	0.221***	0.059	0.050***	0.134	0.102	0.033
Personal Service	0.073	0.084	0.011	0.125	0.078	0.024
Sales and customer service	0.364***	0.075	0.087***	0.197***	0.074	0.040***
Plant, process, machine ops.	0.159***	0.060	0.036***	0.193**	0.087	0.041**
Macroeconomic Variables						
Unemployment rate	-0.065***	0.018	-0.015***	-0.069***	0.021	-0.014***
Working Time Regulations	-0.134**	0.069	-0.032**	0.030	0.081	0.007
Work Life Balance Campaign	0.007	0.043	0.003	-0.146***	0.049	-0.029***
Labour Government	-0.102	0.073	-0.021	-0.207**	0.086	-0.043**
Model Diagnostics						
Log likelihood	-26650.527			-20838.511		
Pseudo R-squared	0.085			0.123		
Total observations	33,394			27,453		
<i>Notes:</i> Data from British Household Panel Survey, 1993-2009 for private sector employees; dependent variable based on responses to the question: ‘Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to work fewer hours than you do now?’ Significance levels of 1%, 5% and 10% are denoted by ***, ** and * respectively.						

Endnotes

¹ The authors would like to thank Geoff Harcourt, James Juniper, and two referees from this journal for comments on an earlier draft. Any remaining errors are our own.

² The right to request flexible working was established by the Employment Act, 2002 which amended the Employment Rights Act 1996 to establish a statutory right to request a contract variation relating to hours, timing of work or location of work for those with childcare responsibilities. The operational details of how requests should be submitted and rights of redress should the process be seen to be breached by an employer were set down in Statutory Instruments – The Flexible Working (Procedural Requirements) Regulations SI 2002/3207 and The Flexible Working (Eligibility, Complaints and Remedies) Regulations SI 2002/3236 respectively. The latter were themselves amended with effect from 2007 to permit carers of adults to apply for flexible work arrangements on the same terms by The Flexible Working (Eligibility, Complaints and Remedies) (Amendment) Regulations SI 2006/3314. See Deakin and Morris (2012, pp.750-2).

³ The 1998 White Paper *Fairness at Work* set-out proposals by the first New Labour government for framework of individual, collective and family-friendly rights that would ‘help to ensure the fair treatment of employees within a flexible and efficient labour market’ (Department of Trade and Industry, 1998, para 1.14). Indeed, in the foreword Prime Minister Tony Blair noted that, ‘Even after the changes we propose, Britain will have the most lightly regulated labour market of any leading economy in the world...These proposals...put a very minimum infrastructure of decency and fairness around people in the workplace’ (ibid.,p.2). In the context of protections around working time the proposals for new regulations exemplified this approach being less the introduction of new absolute individual rights and more the creation of a framework that allowed for as much scope as possible to limit the application of restrictions: ‘The regulations are designed to allow maximum flexibility through agreements between employers, employees and trade unions’ (ibid., para 5.9).⁴

Elsewhere Foley refers to surplus-value being realised as wages for ‘unproductive workers in business and government’ (1986, p.123). However, in his numerical example, which we follow, he removes (unproductive) government employees *a priori*. In our approach we focus on the pre-tax earnings of firms, households and workers, and we are not persuaded to include the wages of public sector workers who provide health, education and social services in the numerator of the surplus-value, or exploitation, rate.

⁵ Brown and Mohun treat mixed income as *sui generis*, i.e. neither compensation of employees or profits (2011, p.1040). Cuestas and Philp do likewise (2012).